

# Air Force Mission Assurance Through Energy Assurance

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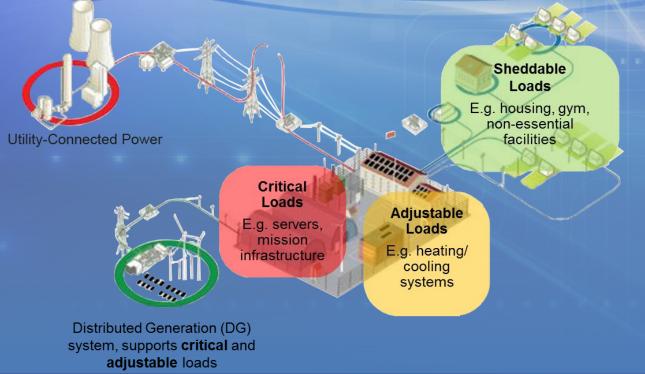


## Energy is fundamental to every aspect of our globally networked Air Force





# By aligning and focusing existing authorities and resources, we will provide new architectures for Air Force installations



#### **DG Value Stream**

- Power purchase agreement sales
- Ancillary services
- Capacity market auctions
- Potential resiliency payments from microgrid participants
- Demand response
- Capital cost incentives/grants
- Secure, reliable power to missioncritical infrastructure

Image Source: S&C Electric Company





20th Century Approach has been fragmented: (examples only, not exhaustive)

- Utility rate negotiations
- Energy efficiency
- •Diesel generators + dual grid feeds
- •Renewable energy EULs with or without offtake agreement (no ability to "island"

We must shift from a fragmented approach, to a holistic approach to achieve affordable, clean, resilient power

**Cost-Effective** 

21st Century Approach will be more inclusive: (examples only, not exhaustive)

•20th Century Approach



- •Utility-scale renewable PPAs
- •Onsite renewables with PPAs and smart controlled "island" capability
- Agile, multi-fuel, integrated smart microgrids







### Three lines of effort will characterize our work to enhance energy assurance

### Assess Vulnerabilities

Mission Decomposition Analysis

Identifies mission dependencies on energy infrastructure across geographic areas



### **Scale Readiness**

Air Force Office of Energy Assurance

Enterprise Approach to Energy Planning and Execution



### **Modernize Resiliency**

Resilient Energy Demonstration Initiative (REDI)

Creates energy toolkit for critical missions and infrastructure



**Outcome: Strategic Energy Agility for Air Force Missions and Installations** 





